COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH

VECTOR CONTROL PROGRAM

ANNUAL REPORT
CALENDAR YEAR 2005

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Vector Control Program

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County of San Diego
Vector Control Program

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I. INTRODUCTION

A vector is any insect, rodent, or animal capable of transmitting human disease or causing human discomfort or injury. The Vector Control Program (VCP) has been protecting the public's health from disease carrying vectors for over 30 years. Since July 1, 1989, the Vector Control Program of the County Department of Environmental Health (DEH) has provided countywide vector prevention and control services under the powers of a vector control district as adopted by the County Board of Supervisors.

Mosquito, rodent, fly, and other vector detection and control programs are provided to reduce the risk of diseases these vectors can transmit and to minimize nuisances. Surveillance is critical to detecting known and emerging pathogens in the environment prior to human outbreaks of disease. Likewise, a comprehensive control program should be in place to quickly respond to complaints, conduct follow-up on complaints, and regularly inspect and treat known breeding sources.

In 2005 San Diego County property owners approved a Proposition 218 ballot measure that provides funding to continue VCP's outstanding efforts to minimize West Nile virus and make several other needed improvements. This report will discuss the progress made to make those improvements. Overall most improvements require additional staffing to meet the stated goals. Recruitment and hiring of new staff is underway and will be completed by May 2006, when the peak mosquito breeding season begins.

VCP core functions include:

- Early detection of public health threats through comprehensive vector **surveillance**
- Protection of public health by **controlling** vectors or exposure to vectors that transmit diseases to humans
- Timely **response** to customer requests to prevent/control vector borne diseases

This report describes the VCP accomplishments in meeting these core functions in 2005.

II. SURVEILLANCE

A. MOSQUITO BORNE DISEASES

VCP conducts surveillance of mosquitoes that could transmit West Nile virus (WNV), Western Equine Encephalitis (WEE), and St. Louis Encephalitis (SLE). Testing for West Nile virus would have also detected the presence of Western Equine Encephalitis and St. Louis Encephalitis, but none of these other arbo-viruses were detected in 2005.

WEST NILE VIRUS IN SAN DIEGO COUNTY

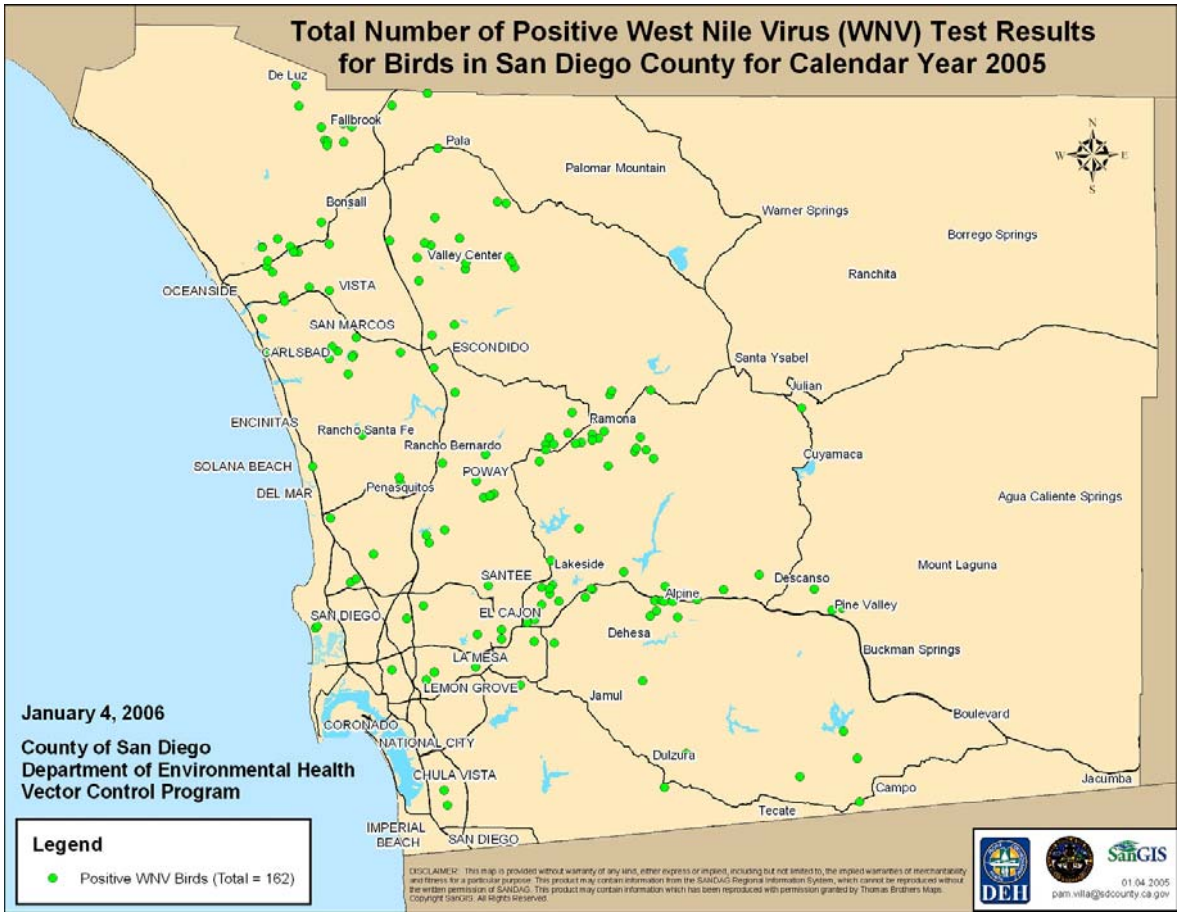
In 2003 the Board of Supervisors adopted the West Nile Virus Strategic Response Plan (Plan), to establish an organized and planned response to the virus in the county. The Plan was updated in 2004 to provide updated information and address the potential use of adulticides if determined necessary. The completed Plan is posted on the website at www.sdfightthebite.com.

The progression of West Nile virus (WNV) in San Diego County began in 2003 when the virus was discovered in San Diego County with five dead birds and one horse testing positive. In 2004 WNV was

found in 34 dead birds with a broad distribution throughout the county. Two horses acquired the virus, one in the Bonsall area and the other in the Tijuana River Valley. According to State reports, San Diego County had two human WNV cases, but one was acquired in Los Angeles County and it could not be determined where the other victim acquired the virus.

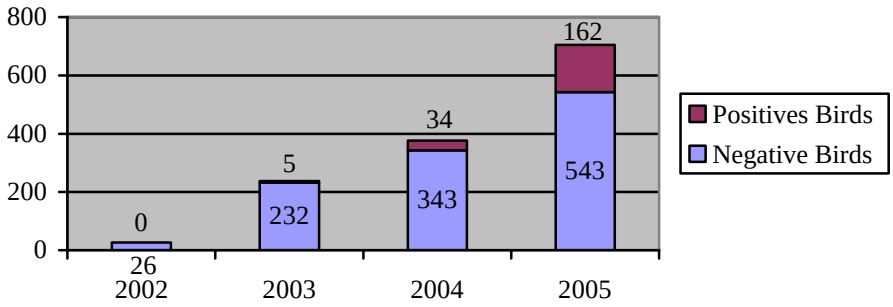
In 2005 there was increased activity in the wild bird population in San Diego. Once again the disease among wild birds was fairly widespread with cases being detected over much of the County as illustrated in Figure 1. A total of 543 birds were tested with 162 of those showing positive results for WNV. In the County of San Diego no horses tested positive during 2005. One human case was diagnosed in the County but further investigation could not determine whether or not the virus had been acquired locally.

FIGURE 1
WEST NILE VIRUS POSITIVE DEAD BIRDS IN 2005



Dead bird testing was the most valuable surveillance tool in early detection of West Nile virus in the County and State. Table 1 demonstrates the dramatic increase in dead bird testing since 2003. By identifying concentrations of positive dead birds in certain areas of the county VCP was able to focus its surveillance efforts in Fallbrook, Valley Center, Ramona, La Mesa, and Alpine. Using the Sheriff's helicopter, VCP conducted surveillance over these areas to locate green swimming pools and previously unidentified ponds. Green pools are typically neglected swimming pools where water is not filtering or moving. The aerial surveillance allowed staff to follow-up on the ground by inspecting these potential breeding sources. VCP staff discovered over 150 new mosquito breeding sources in this manner.

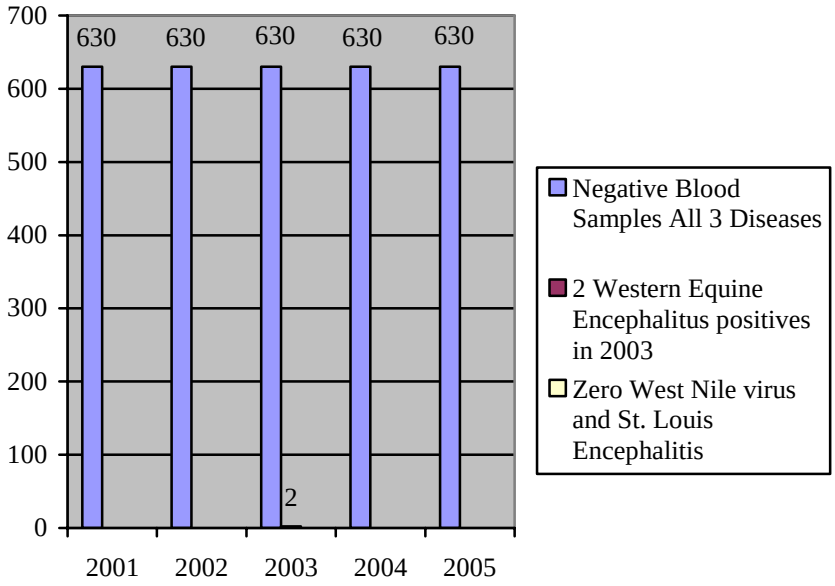
TABLE 1
2005 DEAD BIRD TESTING



As part of the bird testing program, VCP's Vector Ecologists used a new, more rapid test to determine if dead birds were infected with the virus. In the spring of 2005, VCP started using a test known as VecTest™. This was used on all crows, ravens, and jays that were collected and met testing criteria. The test can be performed and results achieved in about 20 minutes. VCP's GIS coordinator then mapped the positive results. This allowed VCP to take control actions right away as opposed to waiting for one or two weeks for results from an outside laboratory. VCP Vector Ecologists contacted all persons submitting positive birds and VCP Technicians investigated and treated any mosquito breeding found near the locations where the birds were found.

Table 2 illustrates the testing of sentinel chickens over the last five years. Sentinel chicken flocks are located at Buena Vista Lagoon, Lake Kumyaay, and the Tijuana River area. In 2005, no sentinel chickens tested positive for West Nile virus, Western Equine Encephalitis, or St. Louis Encephalitis in San Diego County.

TABLE 2
SENTINEL CHICKEN SURVEILLANCE FOR WNV, WEE AND SLE

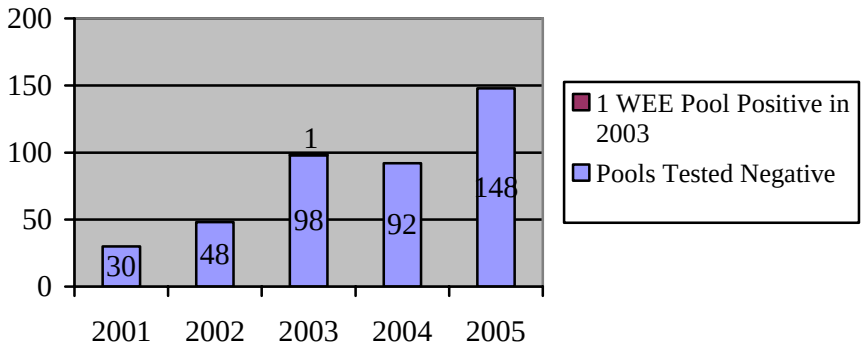


In 2003 mosquito trapping and testing increased by 200%, with 98 pools tested with none testing positive. In 2004, 92 mosquito pools were tested with none testing positive. While more traps were set in 2004

than 2003, fewer mosquitoes were found in the traps. The laboratory needs 25 to 50 mosquitoes to constitute a "pool." In 2005, 148 mosquito pools were tested with none testing positive.

Table 3 illustrates the increase in adult mosquito tested since 2001. The heavy winter rains produced a large number of mosquitoes early in the season which allowed us to increase our testing efforts for the first part of the season. Due in a large part to the very effective aerial applications, much of the trapping did not result in enough mosquitoes to constitute a pool. Field Technicians discovered mosquito breeding during their complaint investigations and inspection of known sources but trapping was not possible since they treated the breeding to stop mosquitoes from maturing to the adult phase.

TABLE 3
TRAPPING AND TESTING OF ADULT MOSQUITOES



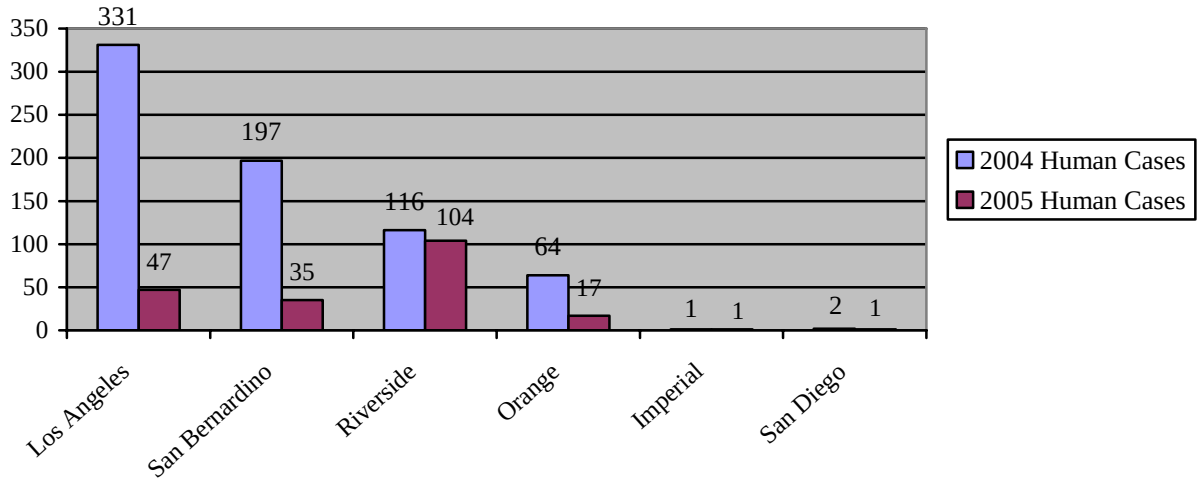
New surveillance devices called "gravid traps" were used in 2004 but none resulted in positive results. Additional efforts were made to utilize gravid traps in 2005. While many more locations were trapped, large numbers of mosquitoes proved rather elusive. Only a small number of sites captured adequate numbers of mosquitoes for testing. Additional locations will be trapped in 2006 to further evaluate the usefulness of these traps. Other vector control programs use these devices effectively to capture mosquitoes from fixed structures such as storm drain systems. Assistance from the cities is needed to find mosquito-breeding locations where the traps can be secured.

WNV IN THE NATION AND IN CALIFORNIA

In 2004 in the nation there were 2539 WNV illnesses and 100 deaths. In 2005 there were 2949 WNV illnesses and 116 deaths. It would appear the number of cases nationwide is beginning to stabilize but there was still more activity on the West Coast in 2005.

In 2004 statewide there were 829 human illnesses and 27 fatalities, with the majority of cases in Southern California. In 2005 the virus shifted its focus to northern and central California. While the number of human cases statewide increased to 927, cases in the southern part of the state declined and the number of deaths dropped to 18 Table 4 below shows the number of positive virus results for southern California counties in 2004 and 2005. As can be seen below, the number of cases dropped dramatically in most areas of southern California.

TABLE 4
2004 AND 2005 SOUTHERN CALIFORNIA HUMAN CASES



Performance Improvement Goals

The following goals have been set for mosquito surveillance during mosquito breeding season:

- Collect adult mosquitoes from five gravid traps each week
- Set 50 adult mosquito traps each week
- Add an additional sentinel chicken flock
- Add a new location for a sentinel chicken flock in the Penasquitos area.

Progress in meeting the other goals will be assessed during next season when additional temporary and permanent staff will be hired.

B. RODENT BORNE DISEASES

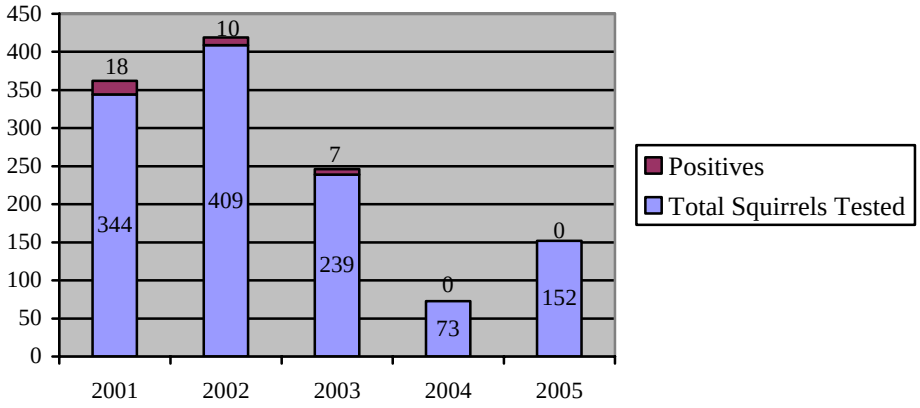
Since the arrival of WNV in the county, surveillance and control efforts have been shifted from rodents to mosquitoes. Given the limited number of surveillance staff, this resulted in a reduction of surveillance activities for plague, hantavirus, and arenavirus in 2004 and 2005. With the approval of the ballot measure, surveillance for rodent borne diseases will increase.

PLAGUE

No human cases of plague were reported in San Diego County during 2005. Table 5 describes plague surveillance over the past five years. Plague infected fleas bite and infect a rodent, usually ground squirrels, and these rodents can act as reservoirs. Humans and their pets, when visiting campgrounds or other rural areas, can be infected by being bitten by infected fleas. Squirrels are routinely tested at campgrounds by collecting blood samples and sending them for plague testing. The 152 ground squirrels that were sampled in 2005 all tested negative for plague. This was a 100% increase in plague surveillance, as compared to 2004, but still less than 2003 when 239 squirrels were tested. Plague surveillance has been conducted mostly at higher elevation localities and has often yielded one or more plague-seropositive

ground squirrels each year. In 2006 plague surveillance will be expanded to lower elevations to verify the past trends that plague only occurs at higher elevations.

TABLE 5
PLAGUE SURVEILLANCE

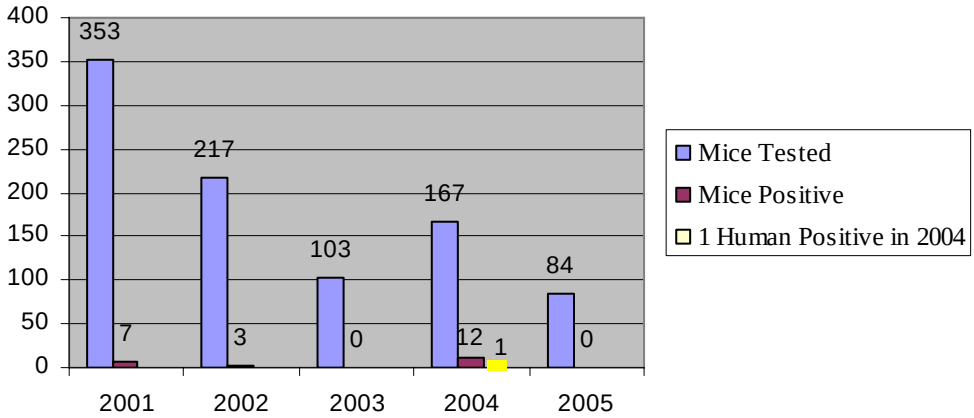


HANTAVIRUS

Both the hemorrhagic and respiratory strains of hantavirus occur in rodents in San Diego County. Humans typically become infected with hantavirus by breathing air-borne particles of wild rodent droppings contaminated with the virus. Most human cases occur when people open up and occupy mountain cabins or other small-enclosed structures, which are infested with wild mice.

The first locally acquired human case of hantavirus was reported in San Diego County history during 2004 in Campo. During 2005, 84 mice were sampled and none tested positive for hantavirus. Table 6 describes hantavirus surveillance for the past five years. Hantavirus testing will increase in 2006 with the addition of new staff. VCP has created a site on its webpage to inform residents how to properly cleanup mouse droppings to help prevent them from acquiring hantavirus. When rodents test positive for hantavirus, the site is re-sampled to determine the prevalence of the virus in the rodent population and is posted with animal caution signs.

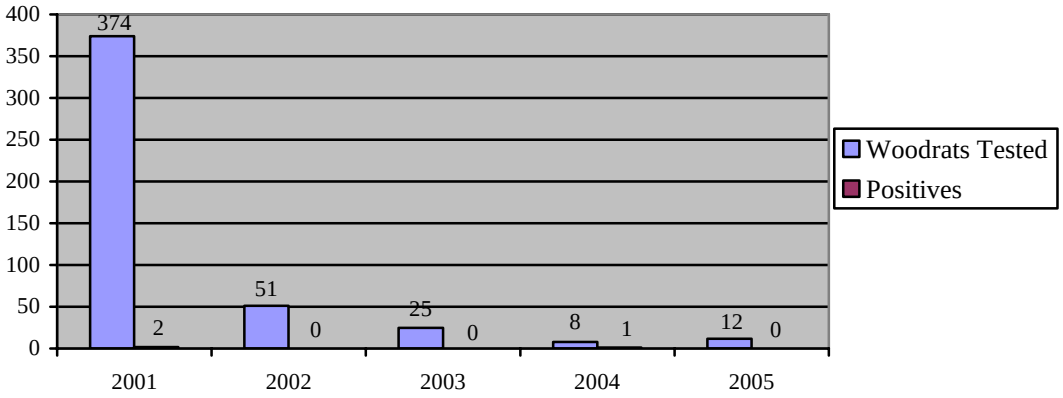
TABLE 6
HANTAVIRUS SURVEILLANCE



ARENAVIRUS

This virus has been found in wild rodents in South America and in wood rats, *Neotoma* spp., in the southwestern portion of the United States. The virus is transmitted to humans in a similar fashion to hantavirus, which is described above. To date, three people in California have died after becoming infected with arenavirus. Table 7 describes arenavirus testing for the past five years. In 2005, 12 wood rats were sampled with none testing positive. When seropositive rats are found, the site is re-sampled to determine the prevalence of the virus in the rat population and is posted with animal caution signs. Currently, there is only one laboratory in the nation testing rodents for this virus. This lab discontinued testing in April of 2006. Due to the extremely low number of cases, testing for arenavirus will be suspended indefinitely.

TABLE 7
ARENAVIRUS SURVEILLANCE



Performance Improvement Goals

The following goals have been set to dramatically increase surveillance for rodent borne diseases:

- Twice a week, from March through November, test rodents for plague
- Weekly collect and test mice for hantavirus

Progress in meeting these goals will be assessed when additional seasonal and permanent staff are hired.

C. TICK BORNE DISEASES

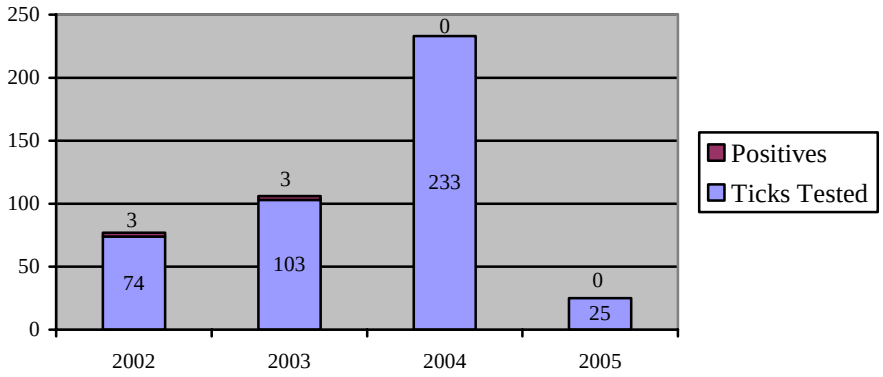
TULAREMIA

Tularemia is typically found in some of the smaller mammals and, in particular, rabbits. The two common species of *Dermacentor* ticks found in the county can pick up the disease when they feed on rabbits and pass it to the next animal on which they feed. It is important to point out though that tick bites are not the only way tularemia can be transmitted. Other biting insects can transmit the bacteria and the disease can be transmitted by direct contact with an infected animal. This is why it is very important not to handle any wild animals, especially if they appear to be ill.

Table 8 describes the surveillance conducted for tularemia over the past five years. In 2005, 25 pools (10 ticks per pool) of ticks in the *Dermacentor* group were submitted for testing. There were no positive

results. It was much harder to find ticks in 2005. Populations were down or spread out more on all of the vegetation resulting from the heavy rainfall.

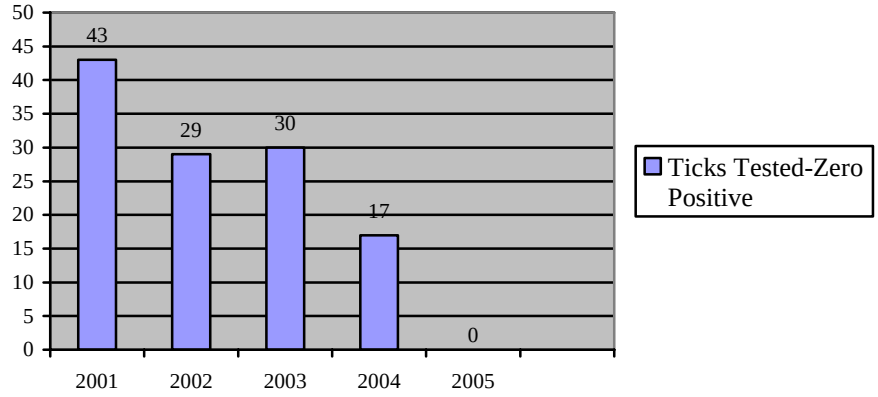
TABLE 8
TULAREMIA SURVEILLANCE



LYME DISEASE

Testing ticks in 1994 and 1995 demonstrated that Lyme disease does occur in San Diego County, but there have been no positive ticks since 1995. Table 9 illustrates the surveillance conducted for Lyme Disease over the past five years. The primary vector for this disease, the western blacklegged tick, is commonly found in most rural areas of the county. During 2005, we were unable to collect enough *Ixodes* ticks to perform any Lyme testing. The heavy rains during tick season may have lowered the population or spread them out so thin that it made collecting very difficult. Two human Lyme Disease cases were diagnosed in San Diego County in 2005 that may have been locally acquired due to lack of travel on the part of the victim. Areas where the victims had been were checked for ticks and warning signs were posted as a precaution. Camp rangers, docent education programs, and other agencies have aided VCP in posting tick warning signs, providing information at recreational areas regarding precautions and personal inspection techniques that can be used to avoid exposure to this and other tick borne diseases.

TABLE 9
LYME DISEASE SURVEILLANCE



Performance Improvement Goal

- Detect the presence of tularemia and Lyme disease through twice weekly testing of ticks from November through March

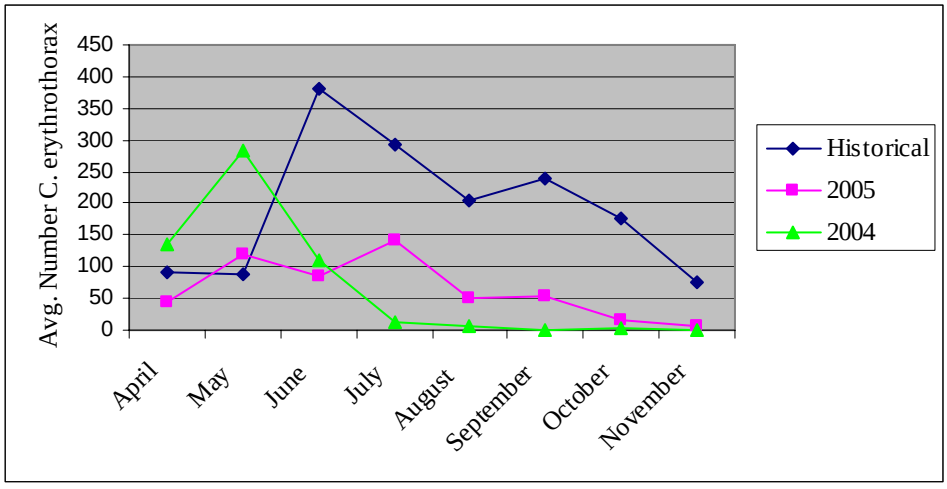
Progress in meeting this goal will be assessed when additional seasonal and permanent staff are hired.

III. CONTROL

A. MOSQUITOES

VCP used aerial applications again in 2005 to control mosquito breeding in inaccessible locations next to urban interfaces that historically produced significant mosquitoes. Following approval of the Ballot Measure in July 2005 four new aerial application sites were added for a total of 31 sites. 2005 was a challenge due to higher than normal rainfall amounts that created urban run off well into August, thereby increasing the amount of area for mosquitoes to breed. Table 10 illustrates the effectiveness of the aerial applications for 2005 compared to 2004 and historical levels. Some monitoring locations showed greater numbers of adult mosquitoes after aerial applications. This is under investigation, but can be attributed to increased water flow from above average rainfall and to greater water vegetation encroachment.

TABLE 10
ADULT MOSQUITO POPULATION AT FOSS LAKE



Aerial applications were conducted using a contract application helicopter service. Our contractor purchased and installed new application equipment for its helicopter. This enabled the contractor to cover the area faster and to stage for refilling at fewer locations. Refilling locations were reduced from 20 locations to 4. Field calibration of the contractor's new application equipment was performed before the start of the mosquito season in 2006.

FIGURE 2
2004 APPLICATION EQUIPMENT

FIGURE 3
2005 APPLICATION EQUIPMENT

The Vector Control Program is continuing to receive support from federal and state wildlife officials that have deemed helicopter applications appropriate. Use of the helicopter is far less invasive to sensitive habitats than efforts by VCP staff conducting land treatment.

To prevent and control mosquitoes, the VCP conducts inspections and identifies mosquito breeding sources. The sources include both private and public ownership of rivers, streams, marshlands, lagoons, ponds, and various other man-made and natural sources of standing water. During 2005, 500 additional mosquito breeding sources were identified by reviewing service complaints performed by VCP staff. The additional breeding sources brought the total to 1,500 identified mosquito breeding sites. Ownership of mosquito breeding sources has been mapped using Graphic Information Systems (GIS) which enables VCP staff to better enforce the property owner's responsibility and to manage water that stands for more than 72 hours. Existing mosquito breeding sources were reviewed during the winter months to confirm location treatment plans. This off season effort improved the program in anticipation of seasonal workers regularly treating identified locations during the mosquito breeding season.

Mosquito fish, *Gambusia affinis*, are natural predators of mosquitoes and VCP rears them in large tanks. Field Technicians place mosquito fish in man-made settings in response to finding larvae. In 2005, mosquito fish distribution sites were restocked with fish every two weeks and VCP continues to offer 14 locations where the public can pickup free mosquito fish. The locations are evenly distributed throughout the county. Each of these locations, including VCP's building at 9325 Hazard Way, some County parks, pet stores and nurseries, features an educational display and is promoted on the website www.sdfightthebite.com and in the media.

Additional mosquito breeding source reduction efforts involve working with city Planning and Public Works departments to ensure new construction of storm-water Best Management Practices (BMP) are built and maintained so they will not breed mosquitoes. During the permitting process, VCP intends to review plans for the construction of BMPs and will incorporate conditions in permits for BMPs and constructed wetlands that will enable VCP to require proper maintenance to prevent mosquito breeding and recoup our costs.

Performance Improvement Goals

The following goals were established to improve the control of mosquitoes:

- Through use of integrated pest management practices, reduce mosquito populations by 80% from their historical levels by:
- Aerial application of at least 27 locations
- Monthly inspection and land application of larvicides to 1,000 sites
- Reduce justified mosquito complaints from the public by 35% from their historical high of 2865 by 2007
- Evaluate mosquito-breeding sources with a goal to modify or eliminate 20 sources each year
- Review at least 50 plans for structural stormwater Best Management Practices (BMPs) annually
- Implement the Vector Habitat Remediation Program designed for long-term permanent solutions for habitual mosquito breeding sites.
- Since passage of the ballot measure four new aerial application sites have been added
- Work is underway to begin the review of stormwater BMPs
- A consultant will be hired to assist in designing the Vector Habitat Remediation Program
- Other goals will require the addition of new permanent and seasonal staff.

B. DOMESTIC RATS

VCP assists residents with their rodent control efforts by providing inspections and consultations. These include efforts to exclude rodents from residents' homes and businesses. In 2005 staff expanded community awareness by making contact on either side and behind every dwelling where evidence of rats

was found. VCP staff coordinated work with other regional agencies to prevent and eliminate rat infestations and harborages.

When plague is detected VCP dusts rodent burrows to control flea populations and control the spread of plague to domestic animals and humans.

Performance Improvement Goals

- Treat rodent burrows where plague has been found to eliminate fleas and stop the spread of plague
- This past year there was no positive plague findings so control efforts were not necessary. As plague surveillance is increased more positive plague tests are expected resulting in control efforts.

C. FLIES

In 2005, 29 poultry ranches were in operation in San Diego County. Six Notices of Violation were issued to poultry ranches and the violations were immediately corrected. One Notice to Abate was issued by the Fly Abatement Appeals Board due to the operator's failure to comply with a Notice of Violation. The operator did eventually comply. Also in 2004, members of the Fly Abatement and Appeals Board met twice to discuss industry issues and provide guidance to the program.

Performance Improvement Goals

- Reduce the number of justified complaints from historical high of 395 by 20% by reviewing and approving 30 manure management plans for poultry ranches each year
- Inspect each poultry ranch in the county four times per year. Staff accomplished these tasks this past year and there were 225 justified complaints, which is 57% of the historical high.

D. OUTREACH

Health education, outreach, and raising awareness in the county are all integral parts of the West Nile Virus (WNV) Strategic Response Plan. In 2005, we dramatically increased outreach efforts. We took an aggressive proactive approach to educating county residents about the risks of WNV and the preventive measures they can take to protect themselves and their communities. New strategies included conducting educational presentations to high-risk target groups, staffing informational exhibits at Street Fairs and Farmer's Markets, and delivering educational materials directly to areas that reported numerous positive dead birds.

We updated and distributed over 87,000 WNV pamphlets and bookmarks at more than 720 public locations such as all public libraries, public health centers, county public counters, homeless shelters, WIC offices, and city halls throughout the county. Additionally, we distributed over 600 copies of a County Television Network-produced WNV video in English and Spanish to community clinics, libraries, high schools, and community groups.

The outreach staff further developed and improved the county's WNV website, www.sdfightthebite.com, providing valuable, up-to-date information for residents about personal protection and elimination of mosquito breeding around homes. They included Federal, state, and local links for additional information and tracking of WNV and posted The WNV Video and public service announcements for personal viewing.

Outreach staff utilized press releases, press conferences and media events to help deliver WNV prevention information. They distributed press packets containing educational materials to all media who attended the events and distributed Public Service Announcements to all of the local television stations.

In addition to West Nile virus, efforts were increased to improved general vector outreach and education. Outreach staff added 18 new pages to the Vector website regarding local vectors and common pests, added three new domain names to make the website more accessible to the public, and developed a new rat video and pamphlet to assist complainants with residential rat control.

Educational Materials distributed:

- Developed new color WNV brochure
- 49,222 English WNV pamphlets
- 19,673 Spanish WNV pamphlets
- 14,119 WNV Bookmarks
- 4,260 DEH Bookmarks
- 110 English WNV videos
- 15 English WNV-looped videos
- 411 Spanish WNV videos
- 70 Spanish WNV-looped videos
- 25 Press Packets
- 700 WNV Horse Brochures
- Developed and distributed 3,500 rat pamphlets
- Developed and distributed 262 “End the Rat Race” videos

Community Outreach:

- Hired 3 students to provide WNV presentations to high risk groups (HIV/AIDS population and seniors) and the general public, including the Spanish-speaking population
- Conducted 54 WNV presentations to community groups
- Exhibited WNV Awareness Week display at CAC
- Attended EarthFair and Miramar Air Show
- Provided rat presentations to community groups.

WNV web page additions:

- On-line dead bird reporting form
- On-line mosquito problem reporting form
- On-line web survey to rate website satisfaction
- Solutions for green swimming pools
- Information on how to deal with mosquito breeding in swimming pools under construction
- Weekly dead bird and WNV case updates

Advertising:

- Registrar of Voters Handbook
- SignOnSanDiego.com web advertising
- Placed ads in:
    - Salud
    - Senior Life
    - Eldercare Directory

Media events:

- Spring Kick-off, April 8, 2005
- Backyard Sources, August 4, 2005
- Personal Protection, September 22, 2005
- 2 Aerial Larvicide Applications, May 12, 2005 and June 8, 2005Hosted First Positive Bird Press Conference
- Distributed 15 press releases Conducted more than 100 media interviews regarding:
  - West Nile virus
  - Vector Benefits Assessment
  - Rats
  - Plague
  - Hantavirus
  - Tularemia

In 2006, we plan to expand our education efforts to:

- Increase media coverage as the most effective means to convey the message
- Target high-risk and underserved populations
- Increase outreach to senior centers, schools and special interest groups
- Identify new locations for educational materials distribution
- Create a Spanish version of our WNV website
- Create and distribute Spanish version of the rat video
- Create and distribute news articles for inclusion in community newsletters
- Enhance the www.sdfightthebite.com website
- Develop Hantavirus educational tools including:
  - Pamphlet
  - Poster
  - Tabletop display
  - Sample cleaning kit

Performance Improvement Goals

While Outreach has been extremely effective since the adoption of the West Nile Virus Strategic Response Plan, additional efforts are being pursued, including:

- Create an online educational assessment survey
- Distribute over 50,000 pieces of educational material each year
- Speak at 50 events or more, targeting high-risk populations
- Create a website and brochure for hantavirus
- All goals were met except for creating a website and brochure for hantavirus, which will be accomplished in 2006.

IV. RESPONSE

A. MOSQUITOES

In 2005 staff responded to 2865 citizen complaints or service requests regarding mosquito nuisances and breeding. This is a 13% increase over 2004 when we received 2656 mosquito complaints. While many complaints involved major mosquito breeding sources, most involved smaller or intermittent backyard sources.

B. DOMESTIC RATS

In 2005, VCP staff responded to 2,876 citizen complaints or service requests relating to domestic rats, a 15% increase over 2004 when we received 2489 complaints.

C. FLIES

In 2005 VCP responded to 224 citizen complaints of excessive numbers of flies. This is comparable to 2004 when VCP responded to 215 fly complaints. Of the 2005 complaints, 103 involved commercial poultry ranches and 121 were related to residential and commercial businesses. There are two species of flies that generate these complaints: *Musca domestica* and *Fannia canicularis*. The *Musca* species breed during the summer months while *Fannia* are most prevalent during spring.

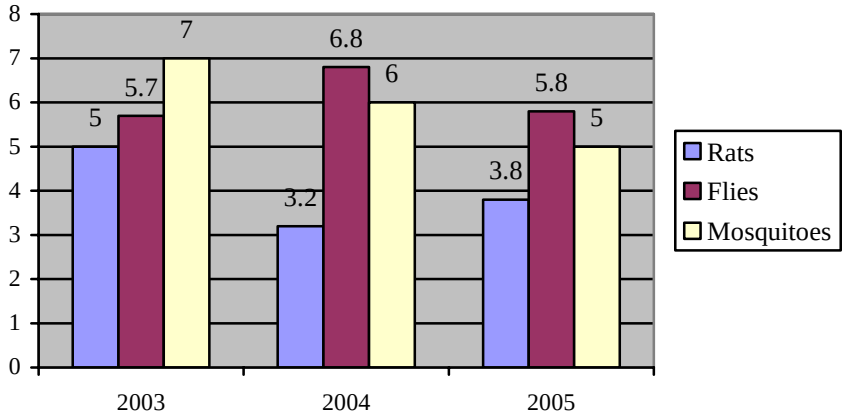
V. CUSTOMER SERVICE

Each month VCP sends a customer service survey to 20% of the complainants from the prior month. Of those survey forms returned to VCP, 97% of the respondents rated the service they received as Satisfactory or better and 75% of the respondents rated the service as Excellent.

During 2005 the average response time for complaints is set forth on Table 11.

- 5.5 days for mosquito complaint investigation
- 3.8 days for rat complaint investigation
- 5.8 days for fly complaint investigation

TABLE 11
OVERALL AVERAGE COMPLAINT RESPONSE TIME



Performance Improvement Goals

In recent years the response time to complaints had reached eight days, so these goals have been established:

- Respond to all complaints within three working days
- Resolve 90% of the complaints within 30 days

- Monthly, send out surveys to 20% of complainants and achieve a 90% satisfaction rating

As new temporary and seasonal staff are hired the response time to complaints will improve.

VI. PROGRAM FUNDING

Since 1989 the funding for VCP has been a service charge levied against all parcels in the county. When Proposition 218 was passed in 1996 it froze our service charge at $3.00 for the Coastal Region and $2.28 in both Inland Regions. Proposition 218 requires a demonstration that services are a benefit to a property before a mail out ballot is sent to all property owners for their vote on a new assessment against a property.

A Trust Account was created for unspent service charge revenues. With that fixed revenue stream VCP was exhausting the Trust Account. Response to West Nile virus has escalated the depletion of the Trust Account two to three years earlier than anticipated.

Response to West Nile virus required a shift in staff and fiscal resources causing a reduction in other public health protective measures. Surveillance for hantavirus, plague, and tick borne diseases was reduced and phone consultations for many rat service requests were substituted for the preferred field response. As this report demonstrates, surveillance, complaints, and outreach efforts for West Nile virus and mosquito control dramatically increased.

The County of San Diego conducted a Proposition 218 ballot measure seeking the approval of county property owners of a new assessment. Ballots were mailed to over 700,000 property owners in May 2005. As specified in Proposition 218, the balloting period was 45 days with a public hearing conducted by the Board of Supervisors to conclude the balloting process. On July 13, 2005 the Board of Supervisors announced that the ballot measure passed by 61.46%.

The pre-existing service charge will continue to provide $2.2 million per year and the new assessment will result in $7.3 million, resulting in $9.5 million in the first year of the new assessment. Of that total, $2.3 million funds one time costs for an Emergency Fund of $1.0 million, repayment of $800,000 for the ballot measure and $500,000 for vehicles, computers, and supplies.

The annual process for determining the per property assessment rate includes developing a budget which is then incorporated into an Engineer's Report and a rate is then proposed. The Board of Supervisors will hold a public hearing after which they will determine the new assessment rate for the next year. Because of the one-time costs in the first year of the assessment there will be a reduction in the rate in the second year.